Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganucheau (U.S. Patent No.: 6,529,740) in view of Homma (U.S. Patent No.: 5,572,678)

Referring to claim 1, Ganucheau teaches: A method (Subscriber (24 per Fig 1) performs the method) comprising at a mobile station (subscriber (24 per Fig 1) and per col. 4 line 66 to col. 5 line 24)

determining a link quality of the point-to-multipoint channel based on link quality related measurement on said point-to-multipoint channel , while multicasting data on point-to-multipoint channel (a subscriber (24 per Fig 1) determines if the signal quality on a point-to-multipoint channel is acceptable and whether switch would be advantageous per col. 11 line 52 to col. 12 line 46)

Ganucheau does not expressly call for: sending a request to said mobile communication network to thereafter continue transmitting multicast data via a point-to-point channel in case said determined link quality lies below a give link quality

Homma teaches: sending a request to said mobile communication network to thereafter transmit said multicast data via a point-to-point channel in case said determined link quality lies below a give link quality (multicast data request retransmission via point to point if error occurs and retransmission processing is executed by utilizing the point-to-point channel or per col. 5 line 34 to col. 6 line 7. Clearly the data which was lost or multicast data is resent by point to point; thus, the data which was previously being sent was considered to be multicast data and the transmitter continues to transmit this multicast data to the receiver)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add sending a request to said mobile communication network to thereafter continue transmitting said multicast data via a point-to-point channel in case said determined link quality lies below a give link quality of Homma to the mobile station or subscriber of Terry in order to build a system which can recover when message is corrupted or lost.

Referring to claim 2, the combination of Ganucheau and Homma teach: the method of claim 1 and establishing a point-to-point channel to said mobile network up receiving a request to continue transmitting said multicast data via a point-to-point channel

Ganucheau does not expressly call for: further comprising said network establishing a point-to-point channel in case said determined link quality lies below a link quality

Homma teaches: further comprising said network establishing a point-to-point channel in case said determined link quality lies below a link quality (retransmit via point to point in response to receiving a request per col. 5 line 34 to col. 6 line

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the network establishing a point-to-point channel in case said determined link quality lies below a link quality of Homma to the mobile of the combination of Ganucheau and Homma in order to build a system which can recover when a message is corrupted or lost

3. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganucheau

(U.S. Patent Pub No.: 6,529,740) in view of Homma (U.S. Patent No.: 5,572,678) further in view

of Segura (U.S. Patent No.: 6,360,076)

Referring to claim 5, the combination of Ganucheau and Homma teach: the method of claim 1.

The combination of Ganucheau and Homma do not expressly call for: further comprising said network providing an indication of said given link quality to said mobile

Segura teaches: further comprising said network providing an indication of said given link quality to said mobile (Network provides TQ subscribe MAX per col. 5 line 25 to col. 6 line 12)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the further comprising said network providing an indication of said given link quality to said mobile of Seguara to the mobile of the combination of Ganucheau and Homma in order to build a system which can determine the when reception of the broadcast is no longer within acceptable quality range.

Referring to claim 6, the combination of Ganucheau, Homma, and Segura teach: the method of claim 5

The combination of Ganucheau and Homma do not expressly call for: wherein said network provides an indication of said given link quality to said mobile station for each multicast service for which multicast data is to be transmitted to said mobile station

Segura teaches: wherein said network provides an indication of said given link quality to said mobile station for each multicast service for which multicast data is to be transmitted to said mobile station (Network provides TQ subscribe MAX per col. 5 line 25 to col. 6 line 12)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add wherein said network provides an indication of said given link quality to said mobile station for each multicast service for which multicast data is to be transmitted to said mobile station of Segura to the mobile of the combination of Ganucheau and Homma in order to build a system which can determine the when reception of the broadcast is no longer within acceptable quality range.

4. Claims 10, 12, 23, & 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Terry (U.S. Patent Pub No.: 2003/0220119) in view of Homma (U.S. Patent No.: 5,572,678)

Referring to claim 10, Terry teaches: an apparatus (Fig 3 & 4) comprising:

A measuring portion for performing link quality related measurements on a point-to-multipoint channel via which said mobile station receives multicast data from a mobile communication network (40 per Fig 3 is the measuring portion which receives multicast data form 22 or mobile network per Fig 3 and measures channel quality per Pg 2 Para[0023)

A processing portion for determining a link quality of a point-to-multipoint channel based on a measurement result provided by said measuring portion and for comparing a determine link quality with a given link quality (30 per Fig 3 or a processing portion receive channel quality measurements from a plurality of 40 per Fig 3 and compares the measurements to determine the poorest quality and per Pg 2 Para [0025])

Transmitting portion configured to transmit to the mobile communication network (34 per Fig 3 or transmitting portion transmits to 22 per Fig 3 or mobile communication network) in case said processing portion detect that a determined link quality of a point-to-point channel, in case said processing portion detects that a determined link quality of a point-to-point multipoint channel employed for transmitting said multicast data lies below a given quality link channel employed for transmitting said multicast data lies below a given link quality (30 per Fig 3 determines the low performance channel per Pg 2 Para [0025])

Terry does not expressly call for: request to a mobile communication network to switch and thereafter continue transmitting multicast data via point to point channel

Homma teaches: request to a mobile communication network to switch and thereafter continue transmitting multicast data via point to point channel (multicast data request retransmission via point to point if error occurs and retransmission processing is executed by utilizing the point-to-

point channel or per col. 5 line 34 to col. 6 line 7. Clearly the data which was lost or multicast data is resent by point to point; thus, the data which was previously being sent was considered to be multicast data and the transmitter continues to transmit this multicast data to the receiver.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add request to a mobile communication network to switch and thereafter continue transmitting multicast data via point to point channel of Homma to the system of Terry in order to build a system which can recover when message is corrupted or lost.

In addition Terry teaches:

Regarding claim 12, sub-network of mobile communication network (Fig 3 and Fig 4 are a sub-network)

Regarding claim 23, wherein said apparatus is a mobile station or part of a mobile station (Part of a mobile station per Figs 3)

Referring to claim 27, Terry teaches: an apparatus (Fig 3 & 4) comprising:

Means for performing (40 per Fig or means for performing measurements on the FACH. The FACH is used for point to multipoint per Pg 1 Para [0003] to {0004]) link quality related measurements on a point-to-multipoint channel via which said mobile station receives multicast data from a mobile communication network

Means for determining (30 per Fig 3 or means for determining) link quality of a point-to-multipoint channel based on a measurement result provided by said measuring portion and for comparing a determine link quality with a given link quality

Means for transmitting (34 per Fig 3) from said mobile

in case said processing portion detect that a determined link quality of a point-to-point channel, in case said processing portion detects that a determined link quality of a point-to-point multipoint channel employed for transmitting said multicast data lies below a given quality link channel employed for transmitting said multicast data lies below a given link quality (Pg 2 Para[0021] to [0030])

Terry does not expressly call for: request to a mobile communication network to switch and thereafter continue transmitting multicast data via point to point channel

Homma teaches: request to a mobile communication network to switch and thereafter transmit multicast data via point to point channel (multicast data request retransmission via point to point if error occurs and retransmission processing is executed by utilizing the point-to-point channel or per col. 5 line 34 to col. 6 line 7. Clearly the data which was lost or multicast data is resent by

point to point; thus, the data which was previously being sent was considered to be multicast data and the transmitter continues to transmit this multicast data to the receiver)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add add request to a mobile communication network to switch and thereafter continue transmitting multicast data via point to point channel of Homma to the system of Terry in order to build a system which can recover when message is corrupted or lost.

5. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Terry (U.S. Patent Pub No.: 2003/0220119) in view of Terry (U.S. Patent No.: 6,810,236) further in view of Homma (U.S. Patent No.: 5,572,678)

Referring to claim 35, Terry teaches: an apparatus for a mobile communication network comprising:

A communication component (32 per Fig 3) configured to receive from a mobile station measurement results for link quality related measurement on a network for transmitting multicast data to said mobile station

A processing component (30per Fig 3) configured to estimate a link quality of a point-to-multipoint channel while multicasting on a point-to point channel to said mobile station, wherein processing component is configured to estimate said link quality of said point-to-multipoint channel based on said measurement results for said point-to-point channel

A processing component (46 per Fig 4) configured to order said mobile station to switch from said point-to-point channel to said point-to-multipoint channel for receiving said multicast data in case said estimated link quality of said point-to-multipoint channel reaches a required link quality

to said mobile station, wherein said processing component is configured to estimate said link quality of said point-to-point

Terry does not expressly call for: requesting from the mobile measurement results on link quality or point-to-point channel is used by said network for transmitting multicast data to said mobile station.

Terry (US 6,810,236) teaches: requesting from the mobile measurement results on link quality (col. 3 lines 1 to 21)

It would have been obvious to add the requesting from the mobile measurement results on link quality of Terry (U.S. 6,810, 236) to communication component configure to receive of Terry in order to determine the best usage of resources.

The combination of Terry and Terry do not expressly call for: point-to-point channel is used by said network for transmitting multicast data to said mobile station.

Homma teaches: point-to-point channel is used by said network for transmitting multicast data to said mobile station (retransmission of multicast data occurs via point to point if error occurs on data received over the point to multicast channel per col. 5 line 34 to col. 6 line 7. Clearly the data which was lost or multicast data is resent by point to point; thus, the data which was previously being sent was considered to be multicast data and the transmitter continues to transmit this multicast data to the receiver)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the point-to-point channel is used by said network for transmitting multicast data to said mobile station of Homma to the processing of the combination of Terry and Terry in order to insure that data is sent when there is an error in the data received on the point to multipoint channel ; thus, improving the reliability of the network.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ganucheau (U.S.

Patent No.: 6,529,740) in view of Homma (U.S. Patent No.: 5,572,678) further in view of

Ramaswamy (U.S. Patent No.: 6,571,112)

Referring to claim 13, the combination of Ganucheau and Homma teach: the method of claim 1

The combination of Ganucheau and Homma do not expressly call for: processor readable medium in which software code is stored on a component of a mobile

Ramaswamy teaches: processor readable medium in which software code is stored on a component of a mobile station (col. 4 lines 7 to 29)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the processor readable medium in which software code is stored on a component of a mobile station of Ramaswamy to the method of the combination of Ganucheau and Homma because method requires processor readable medium to store the software code in order for the method to be performed by a processor.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-9, 10- 13, 23, 30-32, & 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claim 1, what is meant by "transmitting multicast data"? Does "multicast data" have antecedent basis or is the "multicast data" different multicast data"?

Referring to claim 10, what is meant by "transmitting multicast data"? Does "multicast data" have antecedent basis or is the "multicast data" different multicast data"?

Referring to claim 27, what is meant by "transmitting multicast data"? Does "multicast data" have antecedent basis for received "multicast data" are they the same or different.

Claim Rejections - 35 USC § 101

10. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 1-9, 13, 16-18, 22, and 34 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Referring to claim 1, claim 1 is directed to a method which is performed at a mobile station. On page 6 lines 16 to 25 and Pg 7 lines 34 to 16 states that the method can be implemented in software code. Since applicant's claim is that the method is performed at the mobile station and can be performed in software and in dependent claims 13 applicant clarifies code is in processor readable medium examiner asserts that applicant claim 1 is directed to software. A method which lacks physical structure to perform the method is non-statutory subject matter. Additionally the dependent claims 2-9 fail to define physical structure to perform a significant step of the method so they are also non-statutory. Claim 13 is in the wrong format and should be an independent claim in which the processor readable medium stores the instructions which are executed by the processor. Claim13 is rejected under 101 as being non-statutory because the processor readable medium could be interpreted as a transitory medium. Applicant need to argue on the record that the processor readable medium is not a transitory medium and therefore is not a signal per se.

Referring to claim 16, claim 16 is directed to a method which is performed at a mobile communication network. On page 6 lines 16 to 25 and Pg 7 lines 34 to 16 states that the method can be implemented in software code. Since applicant's claim is that the method is performed at the mobile communication and applicant's specification states that the method can be performed in software the examiner has rejected this claim as non-statutory because no physical structure is performing a significant step.

Referring to claim 17, claim 17 is directed to a method which is performed at a mobile station. On page 6 lines 16 to 25 and Pg 7 lines 34 to 16 states that the method can be implemented in software code. Since applicant's claim is that the method is performed at the mobile station and can be performed in software and in dependent claims 22 applicant clarifies code is in processor readable medium examiner asserts that applicant claim 17 is directed to software. A method which lacks physical structure to perform the method is non-statutory subject matter. Additionally the dependent claims 18 fails to define physical structure to perform a significant step of the method so they are also non-statutory. Claim 22 is in the wrong format and should be an independent claim in which the processor readable medium stores the instructions which are executed by the processor. Claim 22 is rejected under 101 as being non-statutory because the processor readable medium could be interpreted as a transitory medium. Applicant need to argue on the record that the processor readable medium is not a transitory medium and therefore is not a signal per se.

Referring to claim 34, claim 34 is directed to a method which is performed at a mobile station. On page 6 lines 16 to 25 and Pg 7 lines 34 to 16 states that the method can be implemented in software code. Since applicant's claim is that the method is performed at the mobile station and can be performed in software according to applicant's specification the method is interpreted as software. A method which lacks physical structure to perform the method is non-statutory subject matter.

Allowable Subject Matter

12. Claims 19, 20-21, 25, 29, 33, & 36 are allowed. The following is an Examiner's statement of reasons for allowance:
Claims 19, 20-21, 25, 29, 33, & 36 are considered allowable since no prior art references or combination of prior art references in combination disclose or suggest the combination of limitations specified in the independent claims including:

"wherein said switch order release said point-to-point connection and provides parameters to said point-to-multipoint channel to said mobile station" in combination with other claim limitations as specified in claim 19.

"means for transmitting transmits multicast data to a mobile station o point-to-point channel for transmitting multicast data to a mobile station and for ordering said mobile station to switch from said point-to-point channel to said point-to-multipoint channel for thereafter receiving multicast data by means of a switch order in case said estimated link quality lies above a required link

quality; wherein said switch order releases said point-to-point connection and provides parameters for said point-to-multipoint channel to said mobile station " in combination with other claim limitations as specified in claim 29.

"a switching component configured to receive an order form said mobile communication network to switch from said point-to-point channel to said point-to-multipoint channel for receiving said multicast data in case said mobile communication network determined that said estimated link quality of said point-to-multipoint channel reaches a required link quality, and to switch from said point-to-point channel to said point-to-multipoint channel for receiving said multicast data upon receipt of said order" in combination with other limitations as specified in claim 36.

13. Claims 30-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Amendment

14. Applicant's arguments filed 12/30/09 have been fully considered but they are not persuasive.

Additionally the examiner has provided the following explanation in order to be totally responsive to the applicant's argument.

Relative to independent claims 1 and 10, the examiner respectfully disagrees with the applicant argument that the combination of reference do not teach: switching between a point-to-multipoint channel and switching from a multicast channel to a point-to-point channel

Ganucheau teaches: multicast data is being received from the base station to the mobile station (mobile station 24 receives multicast data from the base station per col. 4 lines 12 to col. col. 12 line 67))

Ganucheau does not expressly call for: sending a request to said mobile communication network to thereafter continue transmitting multicast data via a point-to-point channel in case said determined link quality lies below a give link quality

Homma teaches: sending a request to said mobile communication network to thereafter transmit said multicast data via a point-to-point channel in case said determined link quality lies below a give link quality (multicast data request retransmission via point to point if error occurs and

retransmission processing is executed by utilizing the point-to-point channel or per col. 5 line 34 to col. 6 line 7. Clearly the data which was lost or multicast data is resent by point to point; thus, the data which was previously being sent was considered to be multicast data and the transmitter continues to transmit this multicast data to the receiver)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add sending a request to said mobile communication network to thereafter continue transmitting said multicast data via a point-to-point channel in case said determined link quality lies below a give link quality of Homma to the mobile station or subscriber of Terry in order to build a system which can recover when message is corrupted or lost.

The combination of reference show that initially multicast data is being received by the mobile station over a point to multipoint ; upon determination that there is an error the mobile station request resending of the same data which is multicast data but now the multicast data is sent via point to point.

The examiner respectfully disagrees with the applicant argument that the combination of reference do not teach: transmission of multicast data is continued via point to point

Ganucheau teaches: A method (Subscriber (24 per Fig 1) performs the method) comprising at a mobile station (subscriber (24 per Fig 1) and per col. 4 line 66 to col. 5 line 24)

determining a link quality of the point-to-multipoint channel based on link quality related measurement on said point-to-multipoint channel , while multicasting data on point-to-multipoint channel (a subscriber (24 per Fig 1) determines if the signal quality on a point-to-multipoint channel is acceptable and whether switch would be advantageous per col. 11 line 52 to col. 12 line 46)

Ganucheau does not expressly call for: sending a request to said mobile communication network to thereafter continue transmitting multicast data via a point-to-point channel in case said determined link quality lies below a give link quality

Homma teaches: sending a request to said mobile communication network to thereafter transmit said multicast data via a point-to-point channel in case said determined link quality lies below a give link quality (multicast data request retransmission via point to point if error occurs and retransmission processing is executed by utilizing the point-to-point channel or per col. 5 line 34 to col. 6 line 7. Clearly the data which was lost or multicast data is resent by point to point; thus, the data which was previously being sent was considered to be multicast data and the transmitter continues to transmit this multicast data to the receiver)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add sending a request to said mobile communication network to thereafter continue transmitting said multicast data via a point-to-point channel in case said determined link quality lies below a give

link quality of Homma to the mobile station or subscriber of Terry in order to build a system which can recover when message is corrupted or lost.

Clearly the primary reference taught that multicast data was being received by the mobile station which was being sent point to multipoint

The second reference teaches: that the multicast data being sent point to multipoint is received with an error and the same data which was previously sent or multicast data is continued to be sent via point to point.

Applicant continues to argue dependent claims of 1 and 10 should be allowed because the rejection of claims 1 and 10 has been traversed. The examiner respectfully disagrees with the applicant argument. Refer to the above argument for details.

The examiner respectfully disagrees with applicant's argument that the 101 rejection has been traverse because applicant's method is tied to a machine. Applicant claim is directed to a method which is at a mobile station but does not state that the method is performed by the mobile station. Additionally on page 6 lines 16 to 25 and Pg 7 lines 34 to 16 applicant's specification states that the method can be implemented in software code. Since applicant's claim is that the method is performed at the mobile station and can be performed in software and in dependent claims 13 applicant clarifies code is in processor readable medium examiner asserts that applicant claim 1 is directed to software. A method which lacks physical structure to perform the method is non-statutory subject matter. Consequently applicant has not traversed the 101 rejection because applicant has failed to definitively amend the claim to clarify physical structure is performing the method.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT W. WILSON whose telephone number is (571)272-3075. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on 571/272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

//Robert W Wilson/
Primary Examiner, Art Unit 2475

RWW
1/12/10